of a mobile phase passing through said re-useable chromatography column packing of the at least second use,

b) determining the parameters of a function of formula I by fitting the experimental data of the inert change of the physicochemical parameter of the at least second use,

c) determining the difference between the experimental data of the inert change of the physicochemical parameter of the at least second use and the function of formula I with the parameters determined in step b),

d) calculating the difference between the maximum value and the minimum value of the difference determined in step c) and normalizing said difference,

e) determining reduced separation efficacy of said re-useable chromatography column packing when the absolute value of the difference calculated in step d) is more than 0.1,

wherein the function of formula I is

$$yI = \frac{1}{2}P1 \cdot \left(1 + \mathrm{erf}\left(\frac{x-m}{s \cdot \sqrt{2}}\right)\right) + A0,$$

with the amplitude P1, the starting value A0, the mean value m, the standard deviation s, and with

$$\mathrm{erf}(x) = \frac{2}{\sqrt{\pi}} \sum_{0}^{\infty} \frac{(-1)^n x^{2n+1}}{(2n+1)n!}.$$

2. The method according to claim **1**, wherein said inert change is recorded during the purification by a standard conductivity measuring device.

3. The method according to claim **1** wherein said inert change is recorded during the purification by a standard adsorption measuring device.

4. The method according to claim **1**, wherein said inert change of at least one physicochemical parameter of a mobile phase passing through said re-useable chromatography column packing is a change effected by the change of the concentration of a substance in the mobile phase that does not interact with the re-useable column packing.

5. The method according to claim **1**, wherein said inert change is a change in conductivity, as measured by a standard conductivity measuring device.

6. The method according to claim **1**, wherein said inert change of at least one physicochemical parameter of a mobile phase passing through said re-useable chromatography column packing is a change of from 100% of a solution containing a denaturing agent to 100% of a solution not containing said denaturing agent, or vice versa.

7. The method according to claim **6**, wherein said denaturing agent is selected from sodium hydroxide, guanidinium chloride, urea or organic solvent.

8. The method according to claim **1**, wherein said inert change is a sigmoid change.

9. The method according to claim **1**, wherein said inert change is a change over time.

10. A method for the chromatographic purification of a polypeptide, wherein at least one chromatography step using a re-useable chromatography column packing is contained, wherein said method comprises the following steps:

a) identifying and determining the experimental data of an inert change of at least one physicochemical parameter of a mobile phase passing through said re-useable chromatography column packing of the at least second use,

b) determining the parameters of a function of formula I by fitting the experimental data of the inert change of the physicochemical parameter of the at least second use,

c) determining the difference between the experimental data of the inert change of the physicochemical parameter of the at least second use and the function of formula I with the parameters determined in step b),

d) calculating the difference between the maximum value and the minimum value of the difference determined in step c) and normalizing said difference,

wherein the function of formula I is

$$yI = \frac{1}{2}P1 \cdot \left(1 + \mathrm{erf}\left(\frac{x-m}{s \cdot \sqrt{2}}\right)\right) + A0,$$

with the amplitude P1, the starting value A0, the mean value m, the standard deviation s, and with

$$\mathrm{erf}(x) = \frac{2}{\sqrt{\pi}} \sum_{0}^{\infty} \frac{(-1)^n x^{2n+1}}{(2n+1)n!},$$

and

further using the re-useable chromatography column packing when the absolute value of the difference calculated in step d) is 0.05 or less, or

performing an additional characterization and/or assessment of the purified polypeptide when the absolute value of the difference calculated in step d) is more than 0.05 but less than 0.2, or

changing the re-useable chromatography column packing when the absolute value of the difference calculated in step d) is 0.2 or more.

11. The method according to claim **10**, wherein said inert change is recorded during the purification by a standard conductivity measuring device.

12. The method according to claim **10**, wherein said inert change is recorded during the purification by a standard adsorption measuring device.

13. The method according to claim **10**, wherein said inert change of at least one physicochemical parameter of a mobile phase passing through said re-useable chromatography column packing is a change effected by the change of the concentration of a substance in the mobile phase that does not interact with the re-useable column packing.

14. The method according to claim **10**, wherein said inert change is a change in conductivity, as measured by a standard conductivity measuring device.

15. The method according to claim **10**, wherein said inert change of at least one physicochemical parameter of a mobile phase passing through said re-useable chromatography column packing is a change of from 100% of a solution containing a denaturing agent to 100% of a solution not containing said denaturing agent, or vice versa.

16. The method according to claim **15**, wherein said denaturing agent is selected from sodium hydroxide, guanidinium chloride, urea or organic solvent.

17. The method according to claim **10**, wherein said inert change is a sigmoid change.

18. The method according to claim **10**, wherein said inert change is a change over time.

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